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CANNOCK CHASE, AND ITS COAL MINES—No. I.

BY WILLIAM MOLYNEUX.

CANNOCK CHASE, one of the 68 ancient forests of England, was originally an immense tract of country, stretching from Lichfield in one direction, and from Sutton-Coldfield in another, to within a mile of the old borough town of Stafford. It lies in the southern division of the county of Stafford, is divided into two unequal parts by the boundary line of the hundreds of Cudlestone and Offlow; it includes in its area several extensive parishes, and still comprises a range of about 20,000 acres. The Marquis of Anglesey, to whose ancestor, Sir William Paget, it was granted (according to local tradition, for a kitchen garden), by Henry VIII., in the 38th year of his reign, is principal owner, lord of the whole manor, and invested with peculiar powers in the administration of its ancient laws.

The district is generally admitted to have been occupied before the Roman invasion by Cangi, or Cangani, a British tribe who followed the occupation of shepherds, and from whom some writers affirm the term Cannock is derived. Others determine its derivation from the Saxon *cann*, quantity, power of anything, and *aia*, oak, signifying the number of oak trees which formerly grew upon it—upwards of 5000 of which were blown down by a storm in the year 1593; and others, again, invest it with a Danish origin, from Canute, who, it is conjectured, had a residence upon it, and frequently indulged in the sports its depths afforded. It was a favourite resort of the Mercian kings and earls, and shortly after the Norman Conquest Richard de Forester held his land of the gift of the king by the service of keeping the forest of Cannock, and paying to the king yearly the sum of 10 marks. A castle, the remains of which have recently been discovered, of some of the earlier Norman kings, stood upon Castle-hill, in the old park at Beaudesert; and several ecclesiastical institutions were, during the same period, founded in its more fertile and secluded valleys. For centuries before the dissolution the greater part of it belonged to the see of Coventry and Lichfield, whose bishops had a palace on the beautiful slopes of Beaudesert; and here and there over its vast surface hedges or parks were enclosed, the old limits of which are, in several instances, still defined. It is now one of the few forests of England of which any considerable range may be seen in its normal condition; but its long and characteristic history will soon terminate. The Commissioners of England and Wales have already enclosed, and are now enclosing, several thousand acres; and in the course of a few years the 60 miles of road, constructed during the last and present year, at a cost of about 24,000*l.*, will run their straight lengths through a busy and populous centre of mining enterprise and agricultural production, instead of, as now, a wild, moory waste, covered with heather, gorse, and bracken, amongst which deer, grouse, blackcock, snipe, and coneyas multiply exceedingly for the delectation of the sportsman.

This district, so impregnated as it were with historical associations, is at the present time of particular interest to the miner, for the value and extent of its mineral resources. What this extent may ultimately prove to be is now difficult to say, but there is no doubt of its being in reality considerably larger, and of greater aggregate thickness, than is usually supposed. As is well known, it forms the northern termination or outcrop of the South Staffordshire coal field, and appears in the form of a tongue, which has its apex at Brereton, and its base at Brownhills. The outline thus assumed is the result of faults, which throw down the coal beds on each side, and bring in rocks of the new red sandstone, belonging both to the Bunter and Keuper groups in successive order. Of the eastern termination of the coal beds, at depths accessible to the grasp of known mechanical power, from Brownhills to Brereton, and thence on the same side of the Trent Valley northwards there is no doubt, the downthrow ranging throughout from several hundred feet to as many yards. This variation may easily be seen in traversing its line, which, allowing for its curves and indentations is almost due north and south. At Burntwood, close to the division of this and Hammerwich parish, the fault is exposed in a brick-yard, where a bed of clay, 4 feet 6 in. thick, is thrown against the soft red sandstone, which here forms the upper rocks of the coal measures. At the same point, a well-sinking shows this clay to be succeeded by soft highly variegated red sandstone to a depth of 20 yards, then a bed 17 in. thick of remarkably hard and mottled sandstone, coarse and highly crystalline, in which are sparingly embedded the light-coloured clayey pebbles characteristic of the Bunter conglomerates, which is followed by similar soft variegated sandstones as those above. What the subsidence of the strata might be here has not been determined, but I was told by a freeholder that on the sale of the various small lots of land at Hammerwich, on the east side of the fault, some five years ago, all minerals were specially conveyed with it; while on the sale of similar freeholds at Burntwood, on the west side, two years subsequently, the minerals were reserved. One can hardly suppose the non-retention of the minerals in the first case to be an oversight; the transfer was, in all probability, made in the belief that if coal did exist they were at depths unattainable by human means, and, consequently, so far useless; but, as will be shown hereafter, there are points connected with this line of fault which render it extremely probable that in the course of a few years the opinion now generally held will, in some few instances at least, have to be reversed.

From this point northward the conglomerates thicken considerably, rising on each side into bold and picturesque hills, rounded and hollowed out by denudation. Near the Nag's Head Inn, about a mile from Burntwood, borings for coal were made five years ago through these beds, but, beyond proving them to be 120 yards in thickness, with no satisfactory result. On the higher grounds, above the fine old Tudor mansion of Beaudesert, the conglomerates on the east side of the fault give place to the Keuper sandstones, capped by an outlier of red marl, which are shown in one quarry to lie horizontally, and in another, more to the west, to dip at a slight angle with the coal measures, which are here brought in, and form the highest ground of the Chase. The fault on dividing Castle Hill runs on to Brereton across the old park, and is marked throughout its course up the Trent Valley by Keuper sandstones and red marls which are shown in one quarry to lie horizontally, and in another, more to the west, to dip at a slight angle with the coal measures, which are here brought in, and form the highest ground of the Chase. The fault on dividing Castle Hill runs on to Brereton across the old park, and is marked throughout its course up the Trent Valley by Keuper sandstones and red marls which are shown in one quarry to lie horizontally, and in another, more to the west, to dip at a slight angle with the coal measures, which are here brought in, and form the highest ground of the Chase. 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furnaces of insufficient capacity were in use, the blasts especially not being sufficiently powerful; hence there has arisen a habit of consuming mediocre coke, because if its return is not advantageous it adapts itself perfectly to the blast-furnaces. A considerable quantity of coke has been delivered to consumption under the name of half-washed, which is not washed at all; for example, in mines where rich coal soils are partially coke is fabricated with the mucus and dust coal. With these two elements a fine coke is obtained, which has almost the appearance of washed, and it is only by incineration that the quantity of cinders which it contains can be distinguished. From 12 to 15 per cent. are then met with in it, sometimes more, while in well washed coal the proportion is only 5 to 6 percent. M. Varnier proceeded to examine the consequences of the error where operations are carried on with impure combustibles, both from an economical point of view, and also as regards the quality of the products. Thus, taking for example the medium quality of the washed coke of the Mons basin, it costs 12s. 6d. per ton, and the railway carriage, customs, carting, &c., amount to 10s. 4d. more, making a total of 12s. 7s. 10d. per ton. This coke contains 94 to 95 per cent. of combustible matter. The washed coke costs 1s. 8d. per ton less, but contains only 85 per cent. of combustible matter, of which at least 10 or 12 per cent. have to be expended in order to reduce the extra 10 per cent. of useless matter which it contains as compared with washed coke. It results from this that if 95 per cent. of coke is made available in the first description of coke for 12s. 7s. 10d., while 85 per cent. of coke in the latter cost 11s. 6s. 2d. per ton, 1 per cent. costs 0s. 7d. in the first case, and 0s. 4d. in the second. In order to fabricate a ton of pig with mineral yielding about 40 per cent. of iron one requires 12 tons of washed coke; and, carrying out the calculation previously made, it appears that the cost of combustible where washed coke is employed is 11s. 12s. 9d. per ton, and where unwashed coke is used 11s. 17s. 9d. per ton. Thus, as nearly as possible, pig manufactured with unwashed coke costs 4s. per ton more than that produced with the employment of the purest possible combustible. M. Varnier affirms that the theory which he sets up and supports with these figures is completely confirmed by practice, and that it has been shown that there is a difference of about $\frac{1}{2}$ ton of coke when washed combustible is employed. This difference is even more considerable than that which his theory involves, showing that in order to annihilate the 10 per cent. of useless matter which unwashed coke comprises will absorb more than the 8 or 10 per cent. of combustible allotted to that operation. On the actual scene of a coal working the difference attending the use of unwashed coal is less great, but the further one is situated from a colliery the greater is the advantage attending the use of good combustibles, for if schist and cinders are purchased there are still the transport expenses to pay.

The committee of French coal owners has prepared a statement illustrating the production of coal last year in the department of the Nord, from which it appears that the extraction of the following thirteen mines was as follows:—Fresnes, 51,040 tons; Vieux-Condé, 126,896 tons; Râmes, 132,936 tons; St. Sauve, 23,571 tons; Ansiz, 413,230 tons; Denain, 87,948 tons; Aniche, 309,285 tons; Douchy, 145,319 tons; Azincourt, 38,760 tons; Escarpont, 40,784 tons; Vicoigne, 96,800 tons; Escarpont, 112,820 tons; Annois, 12,932 tons. The coal produced by the Fresnes, Vieux-Condé, Escarpont, and Vicoigne mines is anthracite; that of the Râmes, St. Sauve, Ansiz, Escarpont, and Annois mines was hard coal; and that of the Ansiz, Denain, Douchy, and Azincourt mines was rich coal, burning with a long flame. The average sale price per ton was, in 1862, as follows:—Fresnes, 8s. 2d.; Vieux-Condé, 8s. 2d.; Haisnes, 10s. 6d.; St. Sauve, 10s. 6d.; Ansiz, 10s. 9d.; Denain, 10s. 9d.; Aniche, 9s. 1d.; Douchy, 10s. 7d.; Azincourt, 10s. 1d.; Escarpont, 9s. 7d.; Vicoigne, 9s. 7d.; Escarpont, 9s. 5d.; and Annois, 9s. 2d. The mines of the department of the Nord have generally presented greater regularity in prices than those of any other mining district in France, but in 1862 this regularity was much reduced, in consequence of the considerable oscillations which occurred in the neighbourhood of Mons, where coal of good quality, which hitherto maintained its price at 10s. 6d. to 11s. 2d. per ton, fell last year to 8s. 5d. per ton, and even lower. In the first month of the present year good quality of coal from the department of the Nord sold at 10s. 6d. to 11s. 2d. per ton, to all comers, while poor and meagre sorts were submitted at 8s. 5d. per ton. In connection with the coal question in France, we may note that the traffic on the Basses and Alais Railway, which is almost entirely a coal line, has experienced a further considerable expansion this year.

Meetings of Public Companies.

WHEAL CROFTY MINING COMPANY.

A meeting of adventurers was held at the account-house on the mine, on Tuesday, Mr. F. REED WILSON, of the Stock Exchange, in the chair. A considerable body of shareholders were present, among whom were Messrs. R. Hawke, Liskeard; Albert C. L. Giubb, Liskeard; W. Locock Webb, London; R. Clegg, Liskeard; J. Elliott Square, London; John Williams, Plymouth; H. C. Salmon, Hayle; Joseph Reynolds, London, &c.; with the purser, Mr. James Lanyon.

Mr. F. REED WILSON, on taking the chair, stated that the object of their meeting there-day was to receive the report of their agents, and consider what means they should provide for the future vigorous prosecution of the mine. In walking to the mine that morning, they had all had an opportunity of appreciating the position of the sets, closely surrounded on all sides by mines, every one of which had yielded, or are now yielding, enormous profits. With a set in such a position, and comprising (as will be seen by the report) a large extent of unwrought ground between the two great cross-courses of the district, and with a sufficient plant of machinery, he thought the shareholders were in a position to congratulate themselves. He then called on Captain Skewes, who read the following report:—

Wheal Crofty is in the parishes of Illogan and Camborne, and bounded on the north by North Crofty (formerly part of East Crofty), on the south by Dolcoath and Cook's Kitchen, on the east by Tincroft, South Crofty, and East Pool, and on the west by North Roscar and South Roscar (now Roscar). There are on the mine a pumping-engine, 36-in. cylinder, with two 8-ton boiler; drawing-engine, 24-in. cylinder, with one boiler of 9 tons; capstan, with 250 fms. of new 10-in. ropes, shears and pulleys, also new. The engine-shaft has been repaired, cased, and divided to the 30, and the engine is now working the water under the 45 with 8-in. pump and 7-in. bucket; this shaft is sunk to the 125, under adit, and is perpendicular to bottom. Mayne's shaft has been sunk to the 115, under adit, on the course of another lode. Square's shaft has been sunk 30 fms. under adit, and is now in course of being enlarged and repaired; this shaft is being sunk on a cross-course. A cross-cut has been driven at the 70, on the cross-course, 110 fms. south from the engine-shaft, and eight lodes have been cut, but no driving worth mentioning has been made on either of these lodes. There are three cross-courses in the set— one in the centre, which renders the opening up of the ground much easier, and by far more speedy and inexpensive than it could otherwise be; another on the eastern boundary, and the third in the western boundary of the set. From the middle cross-course, on which Square's shaft is being sunk, to the western cross-course (about 100 fms.) nothing has been done to prove the ground on either of the eight lodes which are intersected in the 70 cross-cut, and the same may be said of these lodes between the middle and the eastern cross-course; indeed, only three lodes have been worked on in the set, out of eleven which have been cut; of these wrought on have been very productive. Between these cross-courses, in a parallel stratum of ground, of precisely the same character, great deposits of ore and tin have been made in Dolcoath, Cook's Kitchen, North Roscar, North Crofty (formerly part of East Crofty), and to the west of the western cross-course in Wheal Seton. The fact must not be lost sight of that the north lode in Cook's Kitchen, which has been very productive in that mine, and rich in Tin-croft, will be from the underlie in this set at about the 130 for 200 fathoms long. The water is forced down to the 50, under adit, and we are working at the rate of 3 to 4 fms. a day. I propose to drive a level on a south lode from a cross-cut which has been driven from the engine-shaft 35 fms. south at the 45, where two lodes have been cut; these appear to be coming together going westward, and will form a junction near one of the 110 courses, and there is every reason to expect a good course of ore at this place. To drive also the 24, east from Square's shaft, on the same lode, where the lode is composed of munde, gossan, and peach, intermixed with copper ore, altogether a very promising lode. To drive also the adit level west on the Copper Tankard, through the great cross-course; the lode here is 3 ft. wide, composed of spar, munde, jack, gossan, and prian, with good stones of copper ore. To drive the 25 west on an west lode, through the great cross-course. To sink Square's shaft with all possible speed to the 70, to communicate with that level, in order to ventilate the mine, and to discharge the stuff, which will enable us to prove effectually the west and south parts of the mine. Now that the engines are at work several tribute pitches will be set at once. In this report I have only mentioned some of the work already done, which is necessary for prosecuting the mine. The engines are in good repair, the water charge light, 8-in. pumps being only required to keep the water and to sink under the 125. I have never met with a mine on which a new party of adventurers have entered with better chances of early and profitable returns.—HENRY SKEWES.

Mr. J. ELLIOT SQUARE said he felt sure that everyone who had heard that report would agree with him that it was indeed rare for a body of shareholders to come into a concern with such prospects. Besides the extensive set they had already secured, they had also applied for small portions of ground now inclosed in Dolcoath and North Roscar sets—ground which, although of little or no value to the mine, in question, would be of great importance to them—and which he hoped they would, in due time, succeed in getting. Next to the mine itself, he thought the shareholders had reason to congratulate themselves on having succeeded in securing the services of Mr. James Lanyon as their purser. The position which Mr. Lanyon occupied in the county, as principal mineral agent to Mr. Bassett, the greatest mining proprietor in the western counties, was a guarantee not merely of his efficiency for the office, but also, in his (Mr. Square's) opinion, no slight evidence of the estimation in which the future prospects of their mine were held by those who, of all others, had the means of arriving at a correct judgment.

Mr. WILSON said he thought they would all concur in Mr. Square's estimate of the value of Mr. Lanyon's co-operation with them. His own opinion of the mine, which he had formed on the advice of some of the most competent mining authorities of the county, was such as required no strengthening; but if he had known nothing of the concern before, he would have felt no hesitation in following where Mr. Bassett's principal mineral agent led the way. The point for them now to consider was their financial position; and, with this object, he called upon Captain Skewes to inform the meeting as to about what their costs would be for the coming quarter.

Capt. HENRY SKEWES: I stated in my report, just read, that since we have had the mine, the engine-shaft had been repaired, cased, and divided; the engine put in through order; a large stock of new pitwork laid in; a new capstan, shears, &c., with a new capstan-ropes got in place; and a large amount of miscellaneous work done, involving a considerable consumption of materials. The greater part of this work—which may be considered as preliminary work—is already done, and I do not estimate that we will require more than 2000f., in addition to what we have already spent, to put the mine in a thorough working order. When this has been done we have only the current monthly cost to meet, which will be slight, for our merchants' bills will then only be trifling. Labour in driving levels will be the principal item, for all the heavy and expensive work has been done by our predecessors. In another month, and with the expenditure of 2000f., I have named, we have a mine in as good and efficient working order as need be. For our current cost I estimate that 600f., beyond our returns, will be amply sufficient to carry us through the quarter.

Mr. WILSON: It is now for us to consider what call we shall make to meet this cost; Mr. SALMON: The regular Cornish system of conducting mines is not to make calls in anticipation, but first to incur the cost, and then to divide it. I do not want now to discuss whether this is, or is not, the best system; but such is the system of most respectfully conducted mines, and under it you would require no call until the next meeting.

Mr. WILSON: I have no greater wish than Mr. Salmon to discuss the general merits of the Cornish system of mining accounts, which is first to spend the money, and then to call it up, but in our case I most certainly object to such a system, which I think is scarcely fair to incoming shareholders. My notion is to make such a call-to-day as shall carry on the mine for three months, including all extra cost, and leave us a balance on the credit side when we meet again.

Mr. HAWKE: I quite agree with Mr. Wilson that we should make our calls in anticipation, and that in this case we should make an ample one to leave us a credit balance at our next meeting.—Mr. GUNN and Mr. COOKE having concurred in this view,

Mr. LOOSEK WOODS proposed a call of 6s. per 1,000f. in share, which would provide 1800f., a sum fully amply to all purposes.

Mr. REYNOLDS seconded this motion, saying he quite agreed as to the propriety of making calls in advance. In some mines there was a great deal too much shrinking of calls, by which habitually, which ought to have been paid long before, came on the last holder. He was sure shareholders in mines would gain more in the value of their property by the increased confidence the public would have in it, by making calls in anticipation, than they saved by postponing them.

Mr. SALMON had no objection to making calls in advance, which was, no doubt, a sound principle.

A call of 6s. per 1,000f. share was then agreed.

Capt. PASCOE (of South Frances), Mr. J. LANTAM (purser), Capt. BENNETT (of North Crofty), and Capt. HENRY JAMES, having expressed their opinion as to the value of the ground, and the peculiar circumstances under which it came into the hands of the present adventurers, the meeting broke up.

EAST WHEAL RUSSELL MINING COMPANY.

A special general meeting of proprietors was held at the offices of the company, 8, Austin Friars, on Monday, Mr. EVAN HARVEY in the chair.

Mr. J. H. MURCHISON (secretary) read the notice convening the meeting.

The CHAIRMAN said the proprietors were aware that the object of the present meeting was to receive and consider the reports of Capt. Charles Thomas (of Dolcoath) and Capt. George Rowe (of Wheal Edward). It would be recollect that at the last meeting those agents were chosen to inspect the mine, and to report upon its general prospects and the manner in which it is being developed.

Capt. Charles Thomas's report (referring to the way in which the mine had been opened) states that the past operations since his visit to the mine, some three years ago, have been carried out with great propriety, manifesting clearly that prudence and sound mining judgment have been exercised, with due regard to economy, attention having been paid to exploring mainly the run of our ground, about 30 fms. in length, mostly worked away from the 40 to the 110 fm. levels, and also using a portion of the available funds in extending the 45 and 56 fm. level eastward from the tunnel towards extensive old surface workings in that direction; in driving the 88 west, by way of trial, and now in cross-cutting north towards the lode seen at surface; and also in cross-cutting through all the parts of the lode about Homersham's shaft, and eastward from it, wherever a moderate prospect of success or a fair speculation presented itself. Upon this point Capt. Thomas concludes by saying—"Indeed, I highly approve of the way in which the mine has been worked hitherto." As regards the future plan of working, Capt. Thomas states if the mine had been in a prosperous condition, supplying from its own resources sufficient funds, he would continue all the works just as at present; of course, stopping the 120 fm. level cross-cut, near the shaft, and the 110 fm. level cross-cut, both of which have been carried out with great propriety, manifesting clearly that prudence and sound mining judgment have been exercised, with due regard to economy, attention having been paid to exploring mainly the run of our ground, about 30 fms. in length, mostly worked away from the 40 to the 110 fm. levels, and also using a portion of the available funds in extending the 45 and 56 fm. level eastward from the tunnel towards extensive old surface workings in that direction; in driving the 88 west, by way of trial, and now in cross-cutting north towards the lode seen at surface; and also in cross-cutting through all the parts of the lode about Homersham's shaft, and eastward from it, wherever a moderate prospect of success or a fair speculation presented itself. 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wall that offered such unusually favourable prospects as North Rosewarne. He had not only carefully examined the property, but he had minutely manipulated its several modes, which he found to contain all those constituents that a miner regards as an unmistakable evidence of the opening up in depth of great mineral wealth. He could assure the proprietors that it would be the constant aim of the executive to bring about a successful issue in the least possible time and at the least possible expense. The call that had just been made would provide the means for the purchase and erection of a suitable engine, by which they would be enabled to develop the property to their united satisfaction, and he hoped to their united and permanent profit. So much trouble had been taken in thoroughly investigating the yet undeveloped merits of this property, and so perfectly convinced was he that success would be achieved that, if the results which he anticipated were not realised, never again would he express an opinion with regard to any mine, for no longer could those various circumstances now held to be the prime facts essential to the success of a mine be regarded as such. He did not wish it to be inferred from these remarks that he for one moment contemplated other results than the most satisfactory, but merely to convey to the meeting his confident opinion as to the intrinsic merits of the North Rosewarne Mine.—The meeting then separated.

ABERFWRD MINING COMPANY.

A general meeting of proprietors was held at the offices of the company, 18, Cornhill, on Thursday,

Mr. RICHARD TREDINNICK (general manager) in the chair.

Mr. J. W. WATSON (secretary) read the notice convening the meeting. A statement of accounts was submitted, which showed—Mine cost for the four months ending with costs for June, 2941. 4s. 8d.; sundries, stationery, postage, stamps, &c., for eight months, 122. 16s. = 3077. 0s. 8d. Balance last audit, 217. 6s. 10d.; leaving debit balance, 2851. 13s. 10d.

The SECRETARY then read the report of the manager, as follows:—

July 23.—In handing you this day my report of the Aberfwrwd Mines, I have much pleasure in congratulating the proprietor upon having obtained the lands belonging to Mr. Bonsall, and formerly under grant to Mr. Sparrow, lying between the Aberfwrwd and Nantose Mines. This acquisition to the company's grant is important, as the discoveries made at the latter mine exist close to the boundary line, and most unquestionably dip westward into the Bonsall sett. I annex Captain Williams's estimate of the discoveries made at Nantose—June 13: I think the lode is worth 1 ton of ore per fathom, which will produce from 200 to 250 per fm., and on calculating on 50 fms. long we have discovered from 13,000 to 18,000 tons of ore. It will be found that there is a difference of 3000 to 4000 in the estimate; this might be expected, inasmuch as it is impossible for the most experienced person to detect the percentage in silver in the stone, some of the lodes producing 14 ozs. of silver to the ton of lead, and others 100 ozs.; but the estimates from the different agents agree sufficiently well for all purposes of practical mining. From my first inspection of this lode I was led to believe, from the indications presented, that the course of ore opened upon to near the surface was the precursor of an immense deposit of rich ore. In this my opinion has been fully borne out by the development of the mine. The section shows the position of the wheel, &c., as it will be when in full operation. It is with confidence in the future that I meet the shareholders this day, and I trust the time is not remote when I shall be enabled to announce to them discoveries of silver-lead ores equal to those possessed by our immediate neighbours. I would suggest that a call of 11. per 600 tons be made, 2851. 13s. 10d. of which is already expended, and that the shares in future be subdivided into 6000, instead of 600 as heretofore.—R. TREDINNICK.

The CHAIRMAN having moved the adoption of the report and accounts, drew attention to the favourable geological position which the property of the company occupied, being immediately contiguous to the Nantose Mine, where there had so recently been made such valuable discoveries. Although it was true that up to the present time the operations at Aberfwrwd had been of a limited character, yet already a third, or, more properly speaking, a branch of silver-lead ore had been intersected; that branch was being driven upon, and in a few fathoms the same lode would be reached which in Nantose had proved of such value. Of course, he could not positively say that the same satisfactory results would be achieved in Aberfwrwd, but seeing that it was precisely of the same geological configuration, that it possessed the same strata, and that it formed a portion of the direct line of the metal-bearing bands, it was by no means an unjustifiable assumption that as soon as the property had been sufficiently opened results would be realised that would render Aberfwrwd of equal value to Nantose. As regards mining in Cardiganshire generally, it appeared to him that non-success invariably arose either from inadequate capital, or from insufficient development; but as long as he had the honour of occupying the position of general manager, it would be his pride, no less than his duty, to see that while, on the one hand, the property should not suffer from want of the necessary capital to thoroughly develop its resources, yet, on the other, that the utmost economy, compatible with efficiency, should be exercised in every department, and he hoped by the continuance of such a course to ensure a great and permanent success. As regards the financial position of the company, it had been seen by the statement of accounts just submitted, that at the last meeting there was carried forward a small credit balance. Since that time, there had been incurred a liability amounting to 3077., which was, in fact, the four months' costs from March to June. The actual financial position of the company at the present time, therefore, was a balance to the debit of 2851. To liquidate that amount, and to provide for the future development of the property, it would be necessary to make a call, as had been suggested in the report which he had just read. The amount therein mentioned was, he need hardly say, but a suggestion, as none but the shareholders could settle that question; therefore, he would leave it entirely to the meeting to decide.

The adoption of the report and accounts having been duly seconded, the motion was put and carried unanimously.

A discussion ensued as to the advisability of subdividing the shares of the company, the number having hitherto been 600. It was eventually unanimously agreed (upon the proposition of Mr. W. C. VIVIAN, seconded by Mr. PHILLIPS) that the shares be divided into 6000.—Mr. MILSTED suggested the propriety of making the proposed call payable in two instalments, and that a rebate should be allowed on all calls paid on or before a specified day.—A call of 11. per share was made, payable in two instalments, a discount of 5 per cent. to be allowed if paid on or before Aug. 1.

Mr. P. G. Greville was appointed the solicitor of the company.

A vote of thanks to the Chairman having been passed, the proceedings terminated.

DUN MOUNTAIN COPPER MINING COMPANY (LIMITED).

The half-yearly general meeting of proprietors was held at the London Tavern, on Wednesday,—Mr. ARNOLD ROGERS in the chair.

The notice convening the meeting having been read,

The report of the directors was submitted, which stated that—“In the last report issued to the shareholders your directors stated that chrome ore was steadily arriving into this country, and that they were in expectation of finding a permanent and profitable channel for its disposal. They also expressed a hope that the funds provided by the obligation bonds would be sufficient to meet all the liabilities incurred by the company prior to the cessation of expenditure at Nelson. The directors have now to report, with respect to the sale of chrome ore that although the market for that mineral and its chief product, bichromate of potash, is monopolised both here and abroad by a few manufacturers, and notwithstanding the continuance of the depression of trade consequent on the American war, they have succeeded in selling about 1400 tons, the proceeds of which, together with the amount raised by obligation bonds, have been required to meet the current expenses and liabilities of the company. With regard to the cessation of expenditure at Nelson, the board have to state that, by the last Nelson advices, all the liabilities of the company are said to have been discharged, and that, in accordance with the instructions of your directors, operations at the mines were suspended. The railway, plant, and property, however, were all in good working order, and available for any further mining work as soon as instructions to resume the same should be received. Since the meeting, in January last, the reports received from Mr. FitzGibbon, the manager, have been rather of a conflicting character relative to the chrome workings, which in some of such reports are said to be ‘falling off’ and the lodes ‘weak,’ ‘patchy,’ and ‘irregular,’ and he strongly recommends an additional line of railway to be constructed, at an estimated cost of 40000., so as to enable him to work the chrome reef referred to in the January report as situated at a level of 500 to 700 ft. below the present workings, by which means he estimated that 5000 tons of chrome annually could be raised on. These statements, however, have not been accompanied by any measurements or working statistics, so as to enable your directors to form any judgment upon their probable accuracy. There remain about 2120 tons of chrome ore on hand, which your directors have reason to believe they will shortly be able to dispose of at remunerative prices. With regard to the present position and future prospects of this company, the directors have reason to think that the chrome stratum lies in great strength; but, in the absence of measurements, they are unable to form a correct estimate of the extent or value of the lodes; but if, after a thorough miner-like exploration, our chrome deposits are proved to be what the directors expect, they are induced to believe that a satisfactory arrangement can shortly be made for the permanent sale of their chrome at remunerative rates. In conclusion, therefore, taking all the circumstances of the company into consideration, the directors are of opinion that a practical mining captain should be dispatched to Nelson, with as little delay as possible, in order to ascertain the true value of the property, whether as regards chrome ore or other minerals.

The directors have to notify that your late secretary, Mr. Fredk. Saunders, resigned on June 25, and they avail themselves of this opportunity to express their high appreciation of his long and valuable services. They have succeeded in engaging as his successor Mr. William Henry Thornehouse, of 121, Newgate-street, a gentleman well known as a practical chemist, and whose particular qualifications will, no doubt, prove most advantageous to the company in its present position.

The CHAIRMAN said that the report just read contained really the whole of the information which the directors had to lay before the proprietors. It showed that at present the company was affected by the general distress which prevailed in the cotton manufacturing districts. There had been received 4000 tons of chrome ore, and if the same were now raised as had been obtained prior to the American war the company would have received for that 4000 tons of ore the sum of 40,000. As stated in the report, there remained about 2120 tons of chrome ore on hand, which had been proved to be of very rich quality, worth at least 100. per ton. It was patent to them all that the more successful any undertaking was the greater were the difficulties at the outset; but so far as this company was concerned, very important alterations would be endeavoured to be made, and arrangements effected for the cheap extraction of the ore, and also for ascertaining its actual value when it reached this country. In connection with the sales effected some extraordinary facts might be mentioned—a small quantity, perhaps 600 tons, had been purchased by parties who repudiated its quality, and had prejudiced the purchasers, but who subsequently purchased 1000 tons more, without ever having seen it or tested its quality, but which the company was obliged to sell to obtain the necessary funds. Other sales had taken place under precisely similar circumstances. At the present time there was quite sufficient demand in this country to consume twice as much chrome ore as was brought into it. As to the financial position of the company, he was glad to say that, according to the late advices from Nelson, there were no further claims, and it was hoped and believed that the amount realised by the sale of the firewood from the company's estate would nearly, if not entirely, meet the whole of the expenses during the continuance of the present limited operations. It was the intention of the directors upon the present occasion to obtain the consent of the proprietors to send out a thorough practical mining captain, so that some reliable data might be gained not only as to what quantity of chrome ore could be depended upon to arrive periodically in this country, but also to ascertain the actual mineral resources of that property. As far as the ore on hand had been realised the directors would be in position to send out such a person. It would be no disservice to Mr. FitzGibbon to have him to the further exploration of the property. That a practical mining captain should be sent out was the more necessary, seeing there were so many gentlemen interested in the company who believed that the property contained not only chrome ore in great richness and in great abundance, but also other minerals which might be remuneratively developed. For these reasons the directors suggested that as soon as convenient they should send out a practical miner, who could thoroughly ascertain the value of the property, and report upon

its prospects as to future results. He was the largest shareholder, and he was determined to bring about, if possible, a successful issue. He had every confidence in the committee at Nelson, but there must be some sort of supervision where needed, to see that the utmost economy was exercised, and to arrange contracts. The proprietors were aware that the directors had good reason to believe that a permanent and profitable channel for the disposal of the ore had been found, but from prudential motives he would not at present further allude to that matter. He concluded by moving the adoption of the report and accounts.

Mr. THORNEWAY seconded the proposition. He might mention that the auditors, in company with the directors, declined to receive anything for their services until the proprietors had received a dividend. There was no doubt in his mind that eventually the chrome would be large and permanent profits.

The report and accounts were received and adopted unanimously.

Mr. R. T. P. PARKER said he was an original shareholder, and he had the greatest confidence in the ultimate success of the undertaking. There were few companies of which had conducted the affairs for seven years without remuneration for their services—in fact, had declined to do so until the proprietors had received a dividend. He concluded by moving that the best thanks of the meeting be given to their worthy Chairman and directors for their past services.

Mr. GONDARD said that the proprietors were deeply indebted to their directors for the self-negating way in which they had acted; and seeing that they continued to hold their large interest through the many difficulties which had surrounded the enterprise, he thought the proprietors could not sufficiently express their thanks. He had much pleasure in seconding the proposition, which was put, and carried unanimously.

The CHAIRMAN, having acknowledged the compliment, said he had never bought nor sold a share since he first took his large stake—whatever had been allotted to him he had taken, because he held largely he had to take largely. He assured them that the board would continue to do their best to bring about those results which had been so long deferred, good and permanent dividends. He could not allow the meeting to separate without stating that the board of directors felt that they could not accept the resignation of their late secretary, Mr. Saunders, without expressing to him their appreciation of the valuable services he had rendered the company during a period of unusual difficulties; and he (the Chairman) was sure that the proprietors would, with pleasure, record their thanks for such long and efficient services.—A unanimous vote of thanks was passed to Mr. Saunders.

Thanks having been voted to the auditors, the proceedings terminated.

AUSTRALIAN AGRICULTURAL COMPANY.

The annual general court of proprietors was held at the offices of the company, No. 5, Cannon-street, on Tuesday,

Mr. E. HAMILTON (the Governor) in the chair.

The notice convening the meeting having been read, the report of the directors (an abstract of which appeared in the Journal of last week) was taken as read.

The CHAIRMAN said there could be no question that the results of the past year's operations were very unsatisfactory; but, if the report showing those results was disappointing, he begged to believe that it was deeply mortifying to those who had presented it. It ought not to be a matter of surprise that during that year the colliery was for nine months either partly or entirely idle. It was also known that competition had been depressing them for many years, that local capitalists had opened out new collieries, and had entered the field against them on unequal terms; and that the directors, being for the most part merchants of great local influence, had been able not only to dislodge them (the Australian Agricultural Company), but had introduced their coal into ports that were to them inaccessible. But Mr. Winship says if he had raised the same quantity of coal during 1862 as during 1859—130,000 tons—then would have been a saving effected by the reduction of wages, and by the generally improved way in which the colliery was worked, of not less than 10,000. Through the alterations which Mr. Winship had effected the cost of draining the pits had been reduced to less than 2000. An extensive horse-tramway had been laid, and the underground works were not to be surpassed by any colliery in this country. The works had now been opened to a considerable distance in different directions, and it was found that the only variation was that the seam increased in thickness and improved in quality. In twelve months the whole of the colliery would be in as efficient a condition as it was possible for any colliery to be. The possession of such a seam of coal, averaging in thickness from 9 to 10½ ft., and within two miles of a port of shipment, could be claimed but by few coal companies. It would be a mistake for the proprietors to infer that the company was ill represented in the colony, for what had taken place during the past year could not be averted by any executive. With reference to the price of coal, the report states that the usual consequences of active competition and pressure on demand is a reduction of prices, and the directors are fully prepared to bear that the superintendent had boldly adopted this course, not only as a means of increasing consumption in the colonies, but in order to encourage the shipment of coal to foreign ports. The manager's attention has been specially called to this subject, and, if he can manage to recover the quantity of trade we formerly carried on, we have but little doubt that he will find some means of reducing charges, so as to leave a fair margin of profit. It appears to us that an alternative to us is not to lose our position by an attempt to uphold prices, and that it is most important to us not to lose our position in the market. He (the Chairman) could not recall these expressions, and, therefore, it was inapt to uphold prices, and that it is most important to us not to lose our position in the market. It was perfectly clear that in matters of price they were ‘dodged’ by their competitors, for in more than one case he had reason to know coal was being sold at a less price than that advertised. They (the Australian Agricultural Company) had raised their coal at a very considerably reduced price—the profit per ton upon the coal raised during the first quarter of 1863 having been 5s. 6d. per ton against 1s. 4d. during the whole of 1862. A contract had been entered into for the supply of 600 tons during the current year, and at a very satisfactory price. Having referred to the capabilities of the Warrah estate for the breeding of sheep, and having stated that he believed the company had seen the worst of its troubles, he concluded by moving the adoption of the report and accounts.

A PROPRIETOR enquired whether it was true that gold had been found upon the company's property?—The CHAIRMAN said that, so far as he knew, at present there was no indication of gold. In answer to further questions, he stated that no instructions would be sent to Mr. Merewether to reduce the price of coal; but, at the same time, he had been told to inform his competitors, if they continued to sell their coal underbanded at a reduced price, that he would openly reduce the price of the company's coal.

The report and accounts were received and adopted, and the retiring directors and auditors were re-appointed. A vote of thanks to the Chairman and directors terminated the proceedings.

ENGLISH AND CANADIAN MINING COMPANY.

An extraordinary general meeting of shareholders was held at the company's office, Devonshire-square, Bishopton, on July 16,

Mr. A. MORRISON in the chair.

At this meeting there were present shareholders representing 1896 shares.

After the usual preliminary business was disposed of, the CHAIRMAN informed the meeting that the annual general meeting called for April 30 had failed through in consequence of a sufficient number of shareholders not being present to form a quorum. He then adverted to the reason for calling the present meeting, one of which was to obtain the approval by the shareholders of the agreement for a sale to certain capitalists in Boston, U.S., of the Harvey Hill portion of the company's estate for 50,000. sterling, on which a deposit of 500. had been received in London, the balance being due in the course of the ensuing month of August. The agreement between these parties and Mr. Stobart, one of the directors, who represented the company, was then read, when it was moved by Mr. ROBERT POYER, seconded by Mr. GEORGE GLADSTONE, and carried unanimously, that the agreement in question be confirmed.

The CHAIRMAN then said that the next point to which he had to call the attention of the meeting was the necessity for making arrangements to liquidate the loan due to the estate of the late Mr. Charles Tilt, it being one of the conditions of the sale that the portion of the company's estate sold be immediately liberated from mortgage.

A resolution was, consequently, proposed by the CHAIRMAN, seconded by Mr. JOHN L. BENNETT, and carried unanimously, fully authorising the board of directors to effect the payment required for the purpose of immediately effecting the annulment of the mortgage.

The CHAIRMAN observed that it was now his pleasing duty to propose a cordial vote of thanks to Messrs. William Stobart and Herbert Williams for their energetic, careful, and successful efforts in negotiating the sale of the Harvey Hill Mine. Mr. Stobart, he said, they all knew and esteemed, not only as one of the directors, but also having for three years filled the office of honorary secretary. It was a great sacrifice on Mr. Stobart's part to leave his family and his various and important avocations, public and private, to cross the Atlantic, and superintend the delicate and difficult affair of the completion of the sale. He congratulated Mr. Stobart and the company on the success with which his labour had been crowned. Mr. Williams was also well known and highly appreciated by the board and the shareholders as the talented and honourable superintendent of their operations in Canada since the commencement, and certainly without his able and prudent management and upright course of conduct the sale would never have taken place.—A resolution to the effect, proposed by the CHAIRMAN, was seconded by Mr. SEWELL, and unanimously adopted.

Mr. STOBART, in returning thanks on his own behalf and on that of Mr. Williams, said that no words of his could express the value of Mr. Williams's zealous co-operation in this important affair; indeed, none but himself and Mr. Stobart would ever know the difficulties they had been compelled, neither were any terms strong enough to express the great obligations which the company was under to Mr. Williams for the zeal, tact, and prudence with which these difficulties had been surmounted. For his own part, he believed that he himself had been of great service in bringing the affair to a conclusion; indeed, Mr. Williams had, on his (Mr. Stobart's) first arrival expressed his opinion that he was the very person most suitable for such a negotiation, and congratulated himself very much on the circumstance. Certainly, however, to Mr. Williams was due the principal part of the merit of this great success, and what he considered a subject for much thankfulness and congratulation. He hoped and believed that when the sale should be completed a new and brighter chapter in the history of the company would have been commenced.

It was then moved by Mr. J. W. MCLAREN, seconded by Mr. GEORGE GLADSTONE, and carried unanimously, that Messrs. Thomas H. Gladstone and Robert Poyer be the auditors for the current year, and that the best thanks of the meeting be given them for their past services.

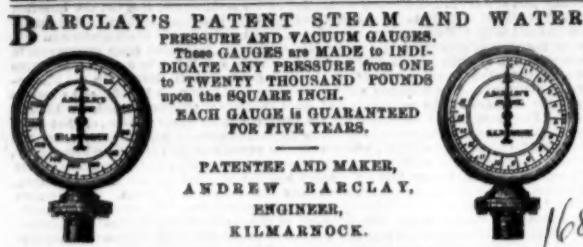
Mr. Poyer having briefly returned thanks, the meeting adjourned.

ANGLO-DANUBIAN STEAM NAVIGATION AND COLLIERY COMPANY.

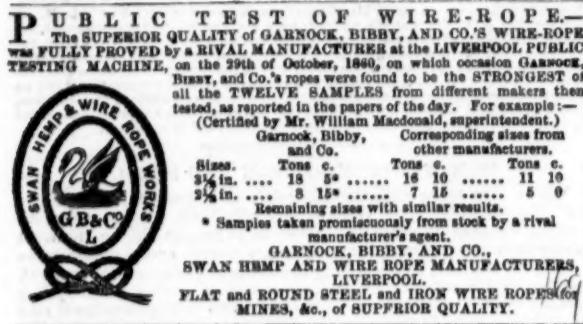
The meeting of shareholders was convened for July 16, but, as we stated in the week's Journal, our reporter was refused admittance; we were, therefore, not able to publish the particulars of the proceedings, and only gave a series of resolutions which were to be moved thereat by Mr. J. L. WALKER. A correspondent has forwarded the following statement as the result of the adjourned meeting on Thursday last.

The adjourned meeting of proprietors of the Anglo-Danubian Steam Navigation and Collery Company was held on Thursday, at the London Tavern, under the presidency of Mr. John Kearns. The report stated that the expenses had been moderate, but that the directors had been placed in positions of great difficulty, on account of the attempt which had been made to wind up the company in Chancery. The petition to that effect, presented to the Master of the Rolls, had been dismissed with costs, but the litigation had been injurious to the company. Despite of these attempts, the assets of the company were sufficient to meet the liabilities. Two of the four promoters of the company—Messrs. Kearns and Burke—were directors, and both had relinquished all legal claim

to any part of the purchase-money mentioned in the article, and had left the question of compensation entirely to the shareholders. Efforts had been made to effect an arrangement with the other promoters, Messrs. Smith and Sir, and these gentlemen had, with the view of arriving at an immediate settlement, intimated their willingness to accept in lieu of their claims 5000. 15000. in cash, and 35000. in debentures. Steps were being taken to carry into effect the agreement of April, 1862, with the Franco-Serbe Company. That company was by the agreement to receive 15,000., and a certain number of shares. The promoters had made themselves personally liable for 15,000. The Franco-Serbe Company, and all the land, moveable property, &c., of that company was in the possession or power of the Anglo-Danubian. All the acceptances had been paid, except one for 4000., which would be payable on the 25th, the whole money, with the exception of 4000., being found by Messrs. Kearns and Burke. The report also stated that the Franco-Serbe Company had not accepted an allotment of shares, and that the final contract with that company was not yet carried out. The directors did not retract their opinions formerly expressed touching the prospects of the company. The Chairman, having moved the adoption of the report, a long discussion ensued.—Mr. Walker entered minutely into the position of the company, strongly condemned certain acts of the directors, and moved, as an amendment, that the report be not adopted. On a show of hands being taken, Mr. Walker's amendment was carried by 15 to 11. A poll was then demanded, and the numbers were found to be—for the amendment, 30; against it, 55.—Mr. Walker thereupon protested against the reception of ten votes, but when the Chairman had consented to their omission there was still a majority of 15 against the amendment.



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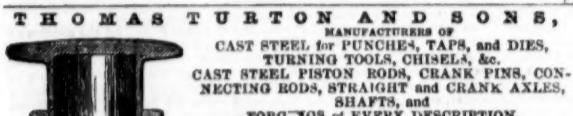
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CREASE'S PATENT EXCAVATING MACHINERY, for SUPERSEDING THE SLOW and EXPENSIVE USE of MANUAL LABOUR in SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to drive through any rock of average hardness at a minimum rate of 1 fm. per diem, and to sink shafts at the rate of 2 fms. in three days.

Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an enormous reduction of time and great saving in cost.

Applications to be addressed (for the present) to the patentee, Mr. E. S. CREASE, Dolgellau, North Wales.

By providing the power of calculating the time and cost to explore a certain depth and extent of ground, speculation in mining will be assimilated to commercial pursuits, with this unmistakable advantage—that when the ground has been once carefully and judiciously selected, and operations properly and systematically carried out for its development, there would be far less chance of unsatisfactory results than are met with by merchants and manufacturers in the usual routine of their business. As this important invention must benefitfully interest the miners, mine proprietors, merchants, and miners, we opine it will meet with immediate adoption. —*Mining Journal*

BASTIER'S PATENT CHAIN PUMP. APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, MARINE, FIRE, &c.

J. U. BASTIER begs to call the attention of proprietors of mines, engineers, architects, and the public in general, to his new pump, the cheapest and most efficient ever introduced to public notice. The principle of this new pump is simple and effective, and its action is so arranged that accidental breakage is impossible. It occupies less space than any other kind of pump in use, does not interfere with the working of the shafts, and unites lightness with a degree of durability almost imperishable. By means of this hydraulic machine water can be raised economically from wells of any depth; it can be worked either by steam-engine or any other motive power, by quick or slow motion. The following statement presents some of the results obtained by this hydraulic machine, as daily demonstrated by use:—

1.—It utilizes from 90 to 92 per cent. of the motive power.

2.—Its price and expense of installation is 75 per cent. less than the usual pumps employed for mining purposes.

3.—It occupies a very small space.

4.—It raises water from any depth with the same facility and economy.

5.—It raises with the water, and without the slightest injury to the apparatus, sand mud, wood, stone, and every object of a smaller diameter than its tube.

6.—It is easily removed, and requires no cleaning or attention.

A mining pump can be seen daily at work, at Wheal Concord Mine, South Sydenham, Devon, near Tavistock; and a pumping pump at Woodside Graving Dock Company (Limited), Birkenhead, near Liverpool.

J. U. BASTIER, sole manufacturer, will CONTRACT TO ERECT his PATENT PUMP at HIS OWN EXPENSE, and will GUARANTEE IT FOR ONE YEAR, or will GRANT LICENSES to manufacturers, mining proprietors, and others, for the USE of his INVENTION.

OFFICES, 68, DEAN STREET, SOHO SQUARE.

London, March 21, 1859. Hours from Ten till Four. J. U. BASTIER, C.E.

MINES AND MINING.

STATISTICS OF AND OBSERVATIONS UPON THE MINES OF CORNWALL AND DEVON.

Illustrated by Maps, Plans, and Sections of the Principal Mining Districts in the two counties.

By Mr. THOMAS SPARCO.

Mining Engineer, Stock and Sharebroker, Gresham-house, Old Broad-street, London.

It contains detailed particulars of the indications and prospects of all the important mines in the two counties, with annual statistical returns, and dividends paid by each; sections and diagrams of the most productive districts, with explanatory notes upon each; as also a map of Cornwall, showing its area and population.

OPINIONS OF THE PRESS.

The mine proprietors of the Western counties have good reason to congratulate themselves that so able an advocate of British Mining as Mr. Thomas Sparco has devoted his energies to the extension of mining literature; while capitalists embarking in mine adventure will thank him for placing requisite—and very desirable knowledge so immediately within their reach. Under the title of "The Statistics of and Observations upon the Mines of Cornwall and Devon," Mr. Sparco has issued a manual of statistics and instructive details which cannot fail to be useful to those seeking information. That his explanations may be more readily comprehended, he has illustrated his work with a series of very neatly engraved maps of the several mining districts to which he refers. —*Mining Journal*.

The work altogether forms an acceptable addition to the existing stock of mining literature, and may be commended to the attention of those who wish to extend their acquaintance with this branch of our home industry. —*Daily News*.

Mr. Sparco's "Statistics of and Observations upon the Mines of Cornwall and Devon" deserves to be perused by all parties who are interested in these investments, and the facts and opinions presented appear to be stated in a fair and candid manner. —*Herald*.

Mr. Sparco's Statistics is full of information useful to parties associated either practically or commercially with mining undertakings. —*Star*.

An instructive publication, deserving of every encouragement. —*Daily Telegraph*.

We recommend this work as a guide to the mines of Cornwall and Devon. —*Chronicle*.

The pamphlet is worthy the attention of all engaged in mining speculations. —*Post*.

It contains in a compressed, but still comprehensive form, all the information requisite to guide an adventurer in the selection of mines for legitimate investment. —*W/Chman*.

From these the mining speculator may arrive at a correct judgment on all mining undertakings. —*Shropshire Conservative*.

No adventurer should enter upon any mining undertaking until he has carefully studied this pamphlet. He will find it a true guide when seeking for a profitable investment. —*Durham County Advertiser*.

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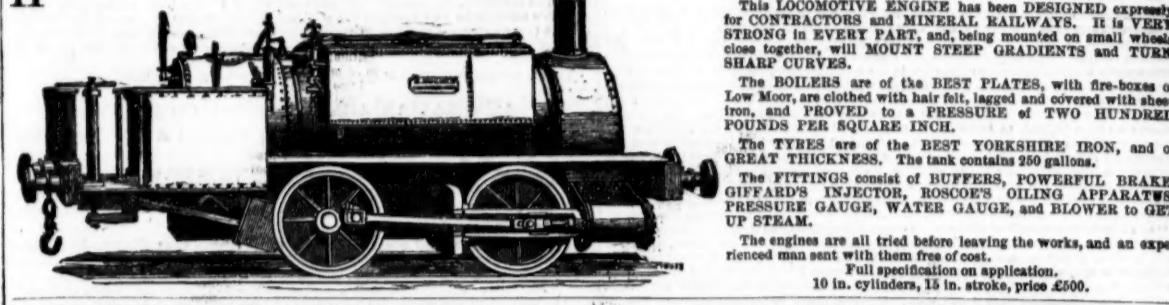
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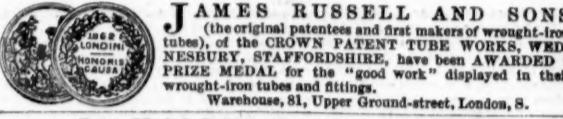
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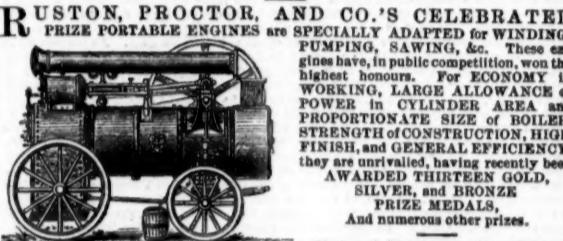
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